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SHORT GUIDE

FOR THE

Clinical Examination of Patients

BY

PROF. DR. ADOLF STRÜMPFEL,

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SHORT GUIDE

FOR THE

Clinical Examination of Patients

COMPILED FOR THE

PRACTICAL STUDENTS OF THE CLINIC

BY

PROF. DR. ADOLF STRÜMPPELL,
DIRECTOR OF THE MEDICAL CLINIC IN ERLANGEN.

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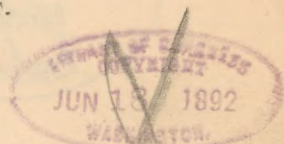
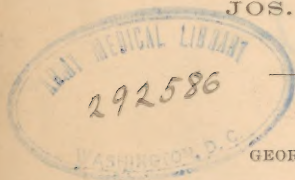
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Preface To The Second Edition.

The second edition of this book has been improved by me in several parts, and particularly the sections treating of the examination of the stomach and nervous system have been slightly extended. The author trusts that the book may also fulfill its purpose in the future, in assisting the student to learn a systematic examination of the patient, and to impress on him the most important requisite means and methods.

ERLANGEN, August, 1889.

STRÜMPPELL.

INTRODUCTION.

The exact clinical examination of a patient divides itself into two chief parts: in the taking of the *anamnesis* and the *objective examination* (taking of the "*Status præsens*").

As it is frequently impossible and most generally also unnecessary to make a detailed examination of all the organs in every single case, we should ask every patient a few preliminary questions, or now and then make a short preliminary examination, so that we may first of all get a general idea as to the nature of his affection. In this way we will learn what circumstances we are especially to take notice of in the now following exact examination. This does naturally not preclude an examination of all the single organs in every case, at least to a certain degree of exactness, for frequently only in this way can we guard ourselves against making gross diagnostic errors. Again, often only by observing the further course of a disease are we enabled to fill out the gaps that become apparent in our previous examination.

We give in the following, first a *schema for the examination of the patient in general*. Then follow short sketches for the examination of the most important individual groups of disease, in as far as in these examinations certain peculiarities are to be considered.

1. General Schema for the Examination of the Patient.

Before beginning the examination we note :

I. Name, Rank (Occupation), Age and Residence of the patient. **Date** of the examination of the patient (resp. patient's admission into the hospital, or the date that he came under the observation of the physician).

II. Anamnesis.

1. *Hereditary circumstances* of the patient.
2. *Former life* of the patient up to his present illness (*former diseases*, general state of health, kind of occupation, habits that may come into consideration, mode of life). In the case of women we frequently ask about former child bed periods, miscarriages that may have taken place (syphilis!) and about the condition of menstruation.
3. What *causes* does the patient think he can give himself for his present illness (taking cold, traumatisms, errors of diet, possibil-

ity of an infection, over exertion, psychical excitation, etc.).

4. *In what manner did the present disease begin* (suddenly or gradually), and with what manifestations.
5. What has been the *further course* of the disease to the present time. What symptoms has the patient noticed particularly, in what order (simultaneously, successively) did they appear.
6. Aside from the chief manifestations of the disease, what has been the condition of the remaining *organs* and *functions*. The patient is usually asked shortly in respect to manifestations on the part of the Head (headache, vertigo), the Chest (cough, expectoration, pains in the chest, palpitation of the heart, shortness of breath), the Abdomen (pains in the abdomen, appetite, nausea, vomiting, condition of the bowels, micturition), and the Extremities (pains, weakness). How has been the general state of health (exhaustion, whether bed-ridden, sleep, and the like).

At times it is of value in conclusion to the anamnesis, to again shortly sum up the subjective symptoms of the patient, which he experiences just at the time of the examination.

III. Status præsens.

1. At the head of the status præsens, in all of the more important cases, we place

usually the TEMPERATURE OF THE BODY (fever) and the *frequency of the pulse*,
Then follows:

2. STATURE and GENERAL STRUCTURE OF THE BODY (whether built strongly or weakly, whether regularly or deformed, and the like).
3. General CONDITION OF NUTRITION (development of the *muscles*, condition of the *panniculus adiposus*).
4. General POSITION and ATTITUDE OF THE BODY (position in bed, supine position, position on the side, sitting position, condition of stiffness).
5. General APPEARANCE OF THE PATIENT (healthy or sickly). *Color of the skin* (pale, red, cyanotic, icteric, etc.). Bloated appearance. (Edema of the skin).
6. Examination of the HEAD.
Skull. Capillitium. Eyes. Ears. Nose. Cheeks. Tongue. Soft palate. Pharynx.
7. Examination of the NECK.
Form and dimensions of the neck. Condition of the great vessels of the neck (carotid arteries and jugular veins). Thyroid gland (struma). Swelling of the lymphatic glands. Larynx. Voice.
8. Examination of the CHEST.
Form of the thorax. Condition of the *respiration*. Percussion and auscultation of the *lungs* (on the chest and back).

Condition of the *heart movements* (apex beat), percussion and auscultation of the heart. It is to the purpose to annex to this examination, the condition of the *radial pulse* (frequency, character and regularity).

9. Examination of the ABDOMEN.

General *form* and *extension* of the abdomen. Resistance of the abdomen on palpation, and painfulness that may supervene. Examination of the *liver* (percussion, palpation). Examination of the *spleen* (percussion, palpation). Percussion and palpation of the remaining parts of the abdomen.

10. Examination of the EXTREMITIES.

Skin. Muscles. Bones. Joints.

11. Examination of the GENITALS, should this appear to be necessary.

12. Examination of the SECRETIONS and EXCRETIONS:

Urine (albumen test and sugar test should be made in all of the more important cases).

Stools.

Sputum.

13. According to circumstances a microscopical examination of the BLOOD.

2. Examination in Acute Febrile Diseases, particularly in Acute Infectious Diseases.

I. Anamnesis.

1. *Hereditary circumstances*, seldom of particular importance (e. g. hereditary disposition to acute rheumatism, acute miliary tuberculosis).
2. *Former condition of the body*, whether vigorous or weakly, and the like. It is very important to ask about *former diseases*, particularly infectious diseases (typhoid fever, measles, scarlet fever and some others, affect the same person usually but once; pneumonia, acute rheumatism, erysipelas and others, frequently affect the same person several times).
3. *Causes of the disease*. *Immediate cause of the disease* (exposure to infection, similar cases of the same disease in the vicinity of the patient, and the like) and *exciting moments* (taking cold, errors of diet, psychological excitation, traumatism, etc.) Hygienic conditions.
4. *Commencement of the disease*. Important *initial symptoms*: rigors, headaches, pains in the neck, stitches in the side, pain in the loins, muscular pains, vomiting, exhaustion, etc.

5. Further course of the disease to the present time.
6. Manifestations on the part of the single organs.

II. Status praesens.

1. *Temperature of the body* (fever!). *Frequency of the pulse.* *Frequency of respiration.*
2. *Structure of the body* and the *condition of nutrition* of the patient.
3. *General appearance* of the patient (very ill or slightly ill). *Facial expression* (bright, exhausted, stupid). *Position of the body* (sunken-down dorsal position—or passive dorsal position, continuous position on the side, etc.) Any *exanthems* that may happen to be present.
4. *Condition of the sensorium* (clear, stupid, somnolent, soporific). *Delirium.*
5. *Head and face.* Color of the cheeks (circumscribed redness) and lips. Movement of the *alae nasi* during respiration (sign of dyspnoea). *Herpes* (in pneumonia, intermittent fever, relapsing fever, epidemic meningitis, etc.; generally absent in typhoid fever). Dry or moist lips.
6. *Tongue* (moist or dry, clear or coated, tremulous or not tremulous).
7. *Parts in the pharynx.*

8. Neck (stiffness of the nape of the neck).
Swelling of the glands.
9. Chest. Structure of the thorax. Respiration. Examination of the *lungs* (bronchitis, catarrhal pneumonia), of the *heart*. Pulse: frequency, regularity, tension (*dicrotic* pulse), acceleration of the frequency of the pulse when the patient sits up.
10. *Abdomen*. Distension of the abdomen, tension, sensitiveness to pressure, ileo-cæcal gurgling. *Roseolae*. Liver. Spleen (area of splenic dulness, and determination whether spleen is palpable or not).
11. *Genitals* (particularly in the acute affections of women this examination is often necessary).
12. *Extremities*. Sensitiveness of the *skin* to pressure, of the *deeper parts*. Any possible exanthems (hemorrhages, etc.). Joints. At times the condition of the reflexes is worthy of attention (e. g. absence of the patellar reflex in trichinosis, polyneuritis, etc.).
13. *Urine* (albuminurea. Acute nephritis as a complication). Diazo-reaction.
14. *Stool* (number of the stools, consistence, appearance, color, stratification). In acute intestinal affections a microscopical examination is often desirable (see below).
15. *Sputum*.
16. *Blood* (leucocythæmia, spirillae).

3. Examination in Diseases of the Respiratory Organs, particularly the Lungs.

I. Anamnesis.

1. Heredity. It is especially important to ascertain the hereditary circumstances, if there is any suspicion of tuberculosis. Careful questioning in regard to the diseases of the parents, brothers and sisters and other relatives.
2. Former state of health of the patient and former diseases: "scrofulous" manifestations in childhood, former catarrhs of the larynx and lungs that the patient has had, inflammation of the lungs hæmoptysis, inflammation of the pleura, fungous bone and joint affections, etc.
3. Deleterious influences attending certain occupations (inhalation of dust, mason work, and the like). Living together with persons suffering from diseases of the lungs. Catching cold. In the case of women affections of the lungs not infrequently follow the puerperium.
4. *Commencement of the disease*, acute or gradual beginning. Symptoms of the onset, either at once on the part of the *respiratory organs* (cough expectoration, stitches in the side, shortness of breath) or first, those resulting from the *general condition*

(exhaustion, loss of appetite, emaciation fever symptoms, headaches).

5. Course of the disease to the present time.

Manifestations on the part of the respiratory organs: pains in the chest, (pleuritic stitches in the side; muscular pains owing to the severe cough).

Cough (frequent or seldom, dry or combined with expectoration, easily separable or distressing, continuous, or especially nights, mornings, and the like.

Expectoration: profuse or little, mucous or purulent (greenish, yellowish). *Bloody.*

In the case of profuse bleeding one must question the patient regarding the quantity and nature of the blood (bright red, foamy). Odor of the expectoration (fetid sputum).

Shortness of breath (constant or only when walking, climbing stairs, etc.).

Laryngeal symptoms (pains in the neck, hoarseness). Difficulties in swallowing.

6. Of the manifestations from the remaining organs we are especially to note :

Stomach. Loss of appetite, vomiting (e. g. when coughing).

Intestinal tract. Diarrhoeas (tuberculosis of the intestine).

Head (headache, dizziness, and the like, as signs of anæmia).

Skin (night sweats!).

The *general condition* of the patient is very important: increasing pallor, weakness, and above all emaciation.

II. Status Præsens.

1. *Temperature of the body. Frequency of the pulse. Frequency of the respiration.*
2. *General structure of the body. Muscular system. Panniculus adiposus.*
3. *Position of the body* (position on the side, position with the upper part of the body raised owing to want of breath).
4. *Appearance of the patient. Pallor, cyanosis* of the skin. Any possible *œdemas* (ankles, lower part of thigh).
5. *Head. Ears* (middle-ear disease, caries of the petrous portion of the temporal bone). Movement of the *alae nasi* during respiration (sign of dyspnoea). Tongue, soft palate and pharynx (tuberculous affections).
6. *Neck. Dimensions* (long, narrow in phthisical patients, short and succinct in connection with the emphysematous habitus). *Fossae* (supraclavicular fossae, jugulum*) sunken-in or obliterated. *Veins of the neck* (prominent, undulating, pulsating.)
Larynx. Voice (rough, hoarse, aphonic). Sensitiveness to pressure. *Laryngoscopical examination!*

* The suprasternal region.

7. EXAMINATION OF CHEST AND LUNGS.

- a) FORM OF THE THORAX (phthisical or paralytic thorax, emphysematous or barrel-shaped thorax). *Dimensions* (length, breadth, depth). Condition of the *infraclavicular fossae* (prominence of the clavicles). *Sternum* (angle of Louis!). *Intercostal spaces* (broad, narrow). *Epigastric angle* (normally a right angle, acute in phthisical patients, obtuse in the emphysematous thorax). *Vertebral column*. *Symmetry of the thorax*, i. e., whether of equal extension on both sides: one-sided flattening (contraction of the apices, the contraction is by preference in the lower parts in the case of shrinking due to pleuritis, etc.) or one-sided *prominence* (pleuritic exudation, pneumothorax, tumors).
- b) RESPIRATORY MOVEMENTS: frequency, depth, regularity, uniformity on both sides (a dragging after of one apex, one side). Condition of in- and expiration (lengthened inspiration in stenosis of the air passages, lengthened expiration in emphysema, etc.).
- c) PERCUSSION OF THE LUNGS. *Qualitative changes* of the pulmonary resonance (dulness, tympanism with or without change of sound). Determination of *boundaries of the lungs*: in front on the right side, in the parasternal line (in

the normal condition, lower border of the 6. rib), in front on the left side, on the left sternal edge (normally lower border of the 4. rib). On the back to both sides of the vertebral column (normally to the height of the 10.-11. dorsal vertebra).

Capability of displacement of the boundaries of the lungs with respiration, with change of position of the patient

- d) **AUSCULTATION OF THE LUNGS.** At all places on the chest wall that are bordered by lung, we are to determine: *strength of the breathing sound* (weakened, absent, the breathing sound seems far off or near to the ear). *Quality of the breathing sound* (vesicular, sharpened vesicular, undetermined, of a breathing character, bronchial, amphoric breathing sound) with inspiration and with expiration.

Condition of the *inspiratory* and *expiratory sound* (lengthened expiratory sound in capillary bronchitis, emphysema). *Adventitious sounds: dry bronchitic noises* [rhonchi] (whistling, hissing, humming, and the like). *Rattling sounds* [râles]: numerous or few, large-, medium-, or small-vesicular (crepitant râles); ringing (consonating) or not ringing; moist or tough; inspiratory or expiratory. *Pleuritic friction*

sound (soft and low, coarse and loud, leather-creaking sound, etc.).

e. *Auscultation of the voice* (bronchophony, ægophony). Sometimes auscultation of the whispered voice.

f. *Vocal fremitus*. Sometimes pleuritic friction is felt.

g. More seldom used methods of examination: spirometry, pneumatometry, etc.

8. *Examination of the heart.*

9. *Examination of the abdomen.*

Liver (passive congestion of the liver, fatty liver, amyloid liver). *Spleen* (passive congestion of the spleen, amyloid spleen).

10. *Urine: albuminuria* (passive congestion of the kidney, amyloid kidney, accompanying nephritis). *Pus in the urine* (tuberculosis of the urogenital apparatus: examination for tubercle bacilli). *Diazo reaction*.

11. *Stool*. Diarrhœas with intestinal tuberculosis (tubercle bacilli in the stools).

12. *Sputum*: quantity. Appearance: serous, mucous, purulent, bloody. Ball-like, nummular sputum in the case of cavities. Stratification (in fetid bronchitis, and gangrene of the lungs). Bronchial casts and bronchial coagula. Spirals. Odor (fetid, sweetish-insipid).

Microscopical examination of the sputum: pus corpuscles, red blood corpuscles,

alveolar epithelium, crystals of fat acids, cholesterine plates, asthma crystals, *elastic fibres, tubercle bacilli*, etc.

4. Examination in Diseases of the Circulatory Apparatus, particularly in Diseases of the Heart.

I. Anamnesis.

1. *Hereditary circumstances* sometimes come into consideration in heart lesions, furthermore in arterial sclerosis (tendency to apoplexy, and the like). The hereditary predisposition to rheumatic affections should also receive attention.
2. The former *mode of life* of the patient : *excessive bodily exertion* ("over-exertion of the heart," hypertrophy of the heart), *great psychical excitations* (hypertrophy of the heart, Basedow's disease). The taking of too much food and *alcoholism* (hypertrophy of the heart, myocarditis). *Excessive smoking* (nervous disturbances of the heart).
3. *Former Diseases*: above all *acute rheumatism* (endocarditis). Furthermore other acute infectious diseases (measles, scarlet fever), chronic rheumatism. *Syphilis* (myocarditis).
4. Subjective complaints and time of their appearance: *palpitation of the heart*. Pains in the region of the heart (attacks

of *angina pectoris*). *Shortness of breath*. Furthermore: general *exhaustion* and bodily weakness. *Symptoms on the part of the head* (headache, dizziness, ringing in the ears). Sleep. *Symptoms on the part of the chest*: shortness of breath (see above). Cough and expectoration (bloody sputum in hemorrhagic infarction). Stitches in the side. *Symptoms on the part of the stomach and intestines*: loss of appetite. Eructation, vomiting. Condition of the bowels. *Micturition* (lessened quantity, etc.). Have any swellings (*œdemas*) been present?

II. Status præsens.

1. General *structure of the body* (children with heart lesions remain behind in development) and *condition of nutrition* (obesity!).
2. *Appearance* of the patient: pale, cyanotic, slightly icteric (for many patients, the peculiar mixture of paleness with cyanosis is directly characteristic of heart disease, in connection with this a slight yellowish coloring is also often present). Bloated appearance. *œdemas*.
3. *Head*: temporal arteries (atheroma!). Lips (cyanosis). Tongue.
4. *Neck*: dimensions. Carotid arteries: pulsation. *Auscultation* (sounds, murmurs). *Veins of the neck*: distention. *Undu-*

lation. Collapse of the veins with systole of the heart. *Pulsation* (stronger on the right side, or of equal strength on both sides. Movement of the bulbus jugularis or of the whole vein. Anacrotic venous pulse). Auscultation of the veins.

Struma (Basedow's disease, etc.).

5. *Examination of the lungs* ("heart disease lung" or brown induration of the lungs. Bronchitis. Infarctions of the lungs). *Hydrothorax*.

6. *Examination of the Heart:*

- a) *Inspection* of the region of the heart (an arching forward in hypertrophy of the heart, pericarditis; sometimes, but seldom, there is a retraction due to pericardial shrinking).

Inspection of the movements of the heart (apex-beat. Diffuse visible pulsation. Pulsation in the epigastrium). *Systolic retractions*.

- b) *Palpation of the apex-beat:* position (normally in the left 5. intercostal space, 1-2 cm. internal to the mamillary line). *Character of the beat* (weak, vigorous, moderate, heaving; equal or or unequal, irregular).

Palpation of the remaining movements of the heart (diffuse pulsation, undulating pulsation). Pulsation in the epigastrium. Pulsation to the right

of the sternum. Palpable pericardial friction-rub.

Palpation of the great vessels (pulsation of the Art. pulmonalis). Palpable valvular closure of the Pulmonalis in left-sided contraction of the lung. Palpable pulsation of the aorta in *aneurisms*, and the like.

c) *Percussion of the heart.*

Determination of the *upper boundary* of the heart-dulness on the left sternal border (normally to the lower border of the 4. rib). Right boundary (normally to the left sternal border). Left boundary (reaches normally to the line of the apex beat). Sometimes the determination of the “relative heart dulness” is of importance (relatively strong dulness at the lower part of the sternum, etc.).

d) *Auscultation of the heart* at the apex of the heart (mitralis), at the sternal end of the left second intercostal space (Pulmonalis), at the upper part of the sternum and at the sternal end of the right second intercostal space (Aorta), at the junction of the right 5. rib with the sternum (Tricuspidalis). The auscultation of the heart furnishes quickly the most certain judgment regarding the *frequency* and *regularity* of the

heart's action. Next the character of the sounds that are heard during *systole* and *diastole* are to be carefully noted: sound, murmur, or murmur *besides* the sound. Sound: clear, flapping, accentuated (II. vessel tone!) or dull, low, indistinct.

Murmur: blowing or rubbing, loud, low, long-drawn or short, and so forth. Division resp., doubling of the heart-sounds (division of the II pulmonary sound in mitral stenosis). Gallop rhythm. Bigeminy.

7. *The examination of the blood vessels* (vessels of the neck, see above) in the case of patients with heart lesions is frequently made immediately after the examination of the heart. In this examination we are to notice: pulsation of the large and of the small arteries (visible pulsation of the smaller arteries in insufficiency of the aortic valve).

Character of the pulse: frequency, regularity, tension, largeness of the pulse wave, nature of the pulse (pulsus celer, tardus, and others). Paradoxical pulse (e. g. in pericarditis, etc.). Sphygmographic examination.

Auscultation of the arteries, particularly the femoral artery (sound, spontaneous murmur, pressure murmur, double sound, double-murmur). Sounds heard over the

smaller arteries (Radialis, and others) in aortic insufficiency.

Auscultation of the veins (vein sound, murmur-) see above. *Venous liver-pulse* in tricuspid insufficiency.

8. *Examination of the Abdomen.* Extension (œdema of the abdominal walls, ascites).

Liver (enlargement of the liver from passive congestion. Liver pulse, see above).

Spleen (enlargement of the spleen from passive congestion). Character and frequency of the evacuations of the bowels.

9. *Urine* (urine of passive congestion; nephritis as a complication).

5. Examination in Diseases of the Digestive Organs, particularly of the Stomach, the Intestines and the Liver.

I. Anamnesis.

1. *Heridity* is only seldom of importance (carcinoma, nervous affections of the stomach, etc).
2. Former condition of the patient. *Mode of life* (errors of diet, alcoholism). Deleterious influences dependent on occupation: chronic intoxications (lead), sedentary mode of life, nervous excitations, etc. Traumatisms (e. g. in the case of *Ulcus ventriculi*).

3. *General manifestations.* Emaciation
General weakness.
4. *Symptoms on the part of the stomach:* loss of appetite, canine appetite. Sensation of pressure, fulness, distension in the region of the stomach. Pain in the stomach: character of the pains, cutting (cardialgic), boring or pressing. Time and duration of the pains, their dependence on the taking of food. *Eructation* (simple eructations, acid eructations). *Heartburn.* *Vomiting:* frequency of vomiting, dependence of the same on the taking of food, nature of the vomited matter: remains of food, mucous, gall, blood (Ulcer), coffee-ground-like vomit in the case of carcinoma.
5. *Symptoms on the part of the intestine:* painfulness, distension of the abdomen. Flatulence. Colicky pains. *Movement of bowels:* regular, constipated, diarrhoeal. Character of the stools: thin, mucous, bloody, full of clumps, etc. Pains during defecation (tenesmus). Haemorrhoids.
6. Other symptoms on the part of the *abdominal organs:* pains in the region of the liver (biliary colic!). Did an icterus ever exist? Pains in the splenic region. Micturition.

II. Status præsens.

1. General conditions of the body. *Condition of nutrition* (emaciation with carci-

noma). *Color of the skin* (fallow and cachectic in carcinoma, yellowish in the case of diseases of the liver, etc.). The dark color of the hair is at times striking in patients with carcinoma.

2. *Head*. The condition of the *tongue* is worthy of attention in patients with affections of the stomach (coated, dry).
3. *Organs in the chest* (position of the Diaphragm).

4. EXAMINATION OF THE STOMACH.

a) *External examination*. Inspection: distension in the region of the stomach, visible arching forward of the stomach, *peristaltic movements* of the stomach. *Palpation*: size of the stomach, position of the fundus ventriculi. Splashing noises. Palpable tumors (position, size and character, shifting of position with respiration). Sensitiveness of the stomach to pressure (localized pressure-pains sometimes in Ulcus ventriculi). *Percussion*: determination of the limits of the stomach resonance (often uncertain!). Percussion above tumors. *Auscultation* is seldom of importance (splashing noises, cooing sound). Now and then the external examination of the stomach may be made easier by *artificial distension* of the same (effervescing mixture).

b) *Examination of the stomach by the aid*

of sound resp. the œsophageal sound. The examination with the sound will first of all acquaint us with the condition of the œsophagus (stenoses, diverticula). Furthermore there will come into consideration: 1) *determination of the extension of the stomach.* Deep penetration of the sound in dilatation. In rare cases the end of the sound can be felt. The size of the stomach is determined with much more certainty by means of percussion, if the stomach is alternately filled and emptied. Distension of the stomach by means of air through the œsophageal sound. 2) *Examination of the stomach contents.* In the morning the normal stomach should be empty. With *hypersecretion* acid gastric juice is always present, even when the stomach is empty of food. Furthermore the normal stomach should not contain any considerable remains of food 6 hours after the last meal (test meal). If the stomach is not empty within the above named time, then this would point to a retarded digestion and weakened or impeded motility of the stomach (stenosis of the pylorus!).

- c) *Examination of the gastric juice* (a portion of the stomach contents is pressed out by means of a siphon about 1—2 hours after the meal). The filtrate is

examined as to its *reaction* (litmus paper, congo paper, tropaeoline). Examination for free *hydrochloric acid* (phloroglucin-vanillin, methyl violet) and for *lactic acid* (solution of ferric chloride with carbohic acid). There is an absence of the reaction for hydrochloric acid in chronic gastritis, above all in carcinoma. Hyperacidity and hypersecretion with ulcer ventriculi. Examination of the *digestive power* of the gastric juice (the gastric juice dissolves a thin slice of coagulated egg albumen unaided, or only after the addition of hydrochloric acid resp. pepsin).

- d) *Microscopical examination of the contents of the stomach.* Remains of food. Sarcina. Yeast cells. Blood corpuscles.
- e) Under certain circumstances the presence of decomposed blood in stomach-contents resp. the vomited matter (coffee-ground appearance) should be tested for by preparing *haemin crystals* (evaporation with glacial acetic acid and some table salt).

5. EXAMINATION OF THE INTESTINE. *Inspection:* distension (meteorism, ascites), retraction. Visible peristalsis especially in stenosis of the intestine. *Palpation:* sensitiveness, palpable tumors (scybala!), cooing sound on palpation. *Percussion:* fulness of the intestine, ascites. *Auscul-*

tation (seldom important): cooing sounds, peritoneal friction sounds. *Examination of the faeces*: frequency of the stools, quantity, color (clay-colored, light, dark, bloody, etc.), character of stools (watery, thin, stratified, pap like, formed, full of clumps, band-like, mucous, bloody, purulent, etc.). Undigested remains of food. *Intestinal parasites*. *Microscopical examination*: remains of food, blood corpuscles, pus corpuscles, epithelial cells, crystals (triple-phosphate, phosphates, fat acids and soaps), bacteria. Eggs of parasites. Sometimes a special bacteriological examination is important (tubercle bacilli, typhoid bacilli, cholera bacilli).

Under certain circumstances a *manual examination or specular examination of the rectum* (ulcers, new growths, syphilitic stenoses, etc.). The *artificial distension of the large intestine* by means of fluid or air is also of diagnostic importance in some cases.

6. EXAMINATION OF THE LIVER. Palpation: enlargement of the liver, nature of the border of the liver (dull, sharp) and of the surface of the liver (smooth, uneven). Liver of tight lacing. Liver tumors. In rare cases the *gall bladder* can be felt. *Percussion* (under normal conditions the liver dulness reaches downward to the arch of the ribs in the parasternal line): enlargement of

the liver dulness, diminution of the same (superposition of intestine, air in the peritoneum, diminution of the size of the liver).

7. *Examination of the spleen:* Palpation (enlargement, incisures on the anterior border of the spleen), percussion.

8. *Examination of the urine* (albumen, bile-pigment), of the *blood*, etc.

6. Examination in Diseases of the Kidneys and of the Urinary Passages.

I. Anamnesis.

1. Consideration of *etiological factors*: mode of life (alcoholism, excessive ingestion of food), occupation (chronic lead intoxication, etc.). Other harmful influences: severe colds, becoming wet through and through. Toxic acting substances that are eliminated through the kidneys (medicines, etc.). Previous diseases (particularly scarlet fever, diphtheria, syphilis, etc., skin diseases).

2. *Duration and course* of the disease to the present time.

3. Single symptoms:

a) General symptoms: exhaustion, pallor, loss of appetite, and the like.

b) Swelling of the feet, of the face, etc.

c) Pains in the region of the kidneys and pain on urination. *Alteration of the urine*: quantity, frequency of voiding

the urine appearance (light, dark, cloudy, bloody, mucous, sedimentary, and the like).

d) Symptoms on the part of the head: headache, dizziness, disturbed sleep, etc.

e) Symptoms on the part of the stomach: loss of appetite, vomiting.—Condition of the movement of the bowels.

f) Cough, shortness of breath. Asthmatic attacks. Palpitation of the heart.

g) Disturbances of vision.

II. Status præsens.

1. General *condition of nutrition*. Color of the skin (marked anaemia). Oedema.

2. *Head*: temporal arteries. Condition found on *ophthalmoscopic examination* (Retinitis albuminuræa). Cavity of the mouth (salivation). Pharynx.

3. *Neck*. Condition of the large vessels.

4. *Chest*. *Lungs* (bronchitis. The pneumonia of patients with kidney diseases Hydrothorax).

Heart (hypertrophy of the left ventricle, accentuation of the second aortic sound). —Character of the *radial pulse* (abnormally tense, hard).

5. *Abdomen*. Ascites. Liver, spleen (passive congestion).—Examination of the region of the kidneys (painfulness, and the

like), of the bladder, in certain conditions examination of the urethra, prostate gland, and testicles.

6. *Examination of the Urine.* At times the distinction of the day and night urine is desirable.

- a) *Color and appearance* (light, cloudy, sedimentary). Presence of mucous, pus, blood.
- b) The *quantity* eliminated in 24 hours (normally about 1500 cm.).
- c) *Specific gravity* (normally about 1012–1015).
- d) *Presence of albumen* (heat test, or test with acetic acid and ferrocyanide of potassium).
- e) Under certain conditions *Heller's test for blood* (boiling with hydrate of potassium).
- f) *Microscopical examination* of the urinary sediment: *casts* (hyaline, waxy, granular, beset with deposits, cylinders of epithelium, etc.). *White blood corpuscles, red blood corpuscles. Epithelial cells*, from the kidneys, or from the urinary passages. Uric acid and other salts. Products of decomposition, etc. In cases of suspected tuberculosis of the urogenital apparatus, examination of the sediment for tubercle bacilli.—With new growths in the urinary pass-

ages (carcinoma of the bladder, etc.), particles of the tumor may be found in the sediment in rare cases.

7. Examination in Chronic Constitutional Diseases.

I. Anamnesis.

1. *General circumstances:* heredity, mode of life, occupation. Deleterious influences due to occupation. Strong psychical excitations (sorrow, care).
2. *General symptoms:* weakness, exhaustion, loss of appetite, disturbed sleep, mental relaxation, out of humor. Condition of the general state of nutrition (diminution of the weight of the body, increase in fatness, inset of pallor). Marked feeling of hunger and thirst (in diabetes).
3. Of the *single symptoms* the following are especially worthy of attention :
 - a) *Symptoms on the part of the head* (particularly signs of cerebral anæmia): headache, dizziness, glittering before the eyes, ringing or rushing in the ears etc. Neuralgic pains (chlorosis, diabetes).
 - b) *Symptoms on the part of the chest:* dyspnœa (anæmia). Palpitation of the heart (anæmia).
 - c) *Symptoms on the part of the stomach and intestine.* Condition of the appe-

tite (see above), vomiting, cardialgia (in anæmia).

- d) Tendency to hæmorrhages, epistaxis, and the like (in leukæmia).

II. Status præsens.

1. *Head.* Color of the face. *Examination of the eyes* (cataract in diabetes, retinal hæmorrhages and other retinal changes in leukæmia, severe anæmia, etc.). Tongue. Teeth.
2. Neck and organs of the chest. *Lymphatic glands!* *Heart:* anæmic murmurs. Behavior of the pulse.
3. Abdomen: liver, *spleen*.
4. *Urine:* sugar (Trommer's test). Albumen.
5. *Examination of the blood:* number of the red and white blood corpuscles. Behavior of the red corpuscles: formation of rouleaux, form (microcytes, macrocytes, poikilocytes). Products of decomposition.

8. Examination in Diseases of the Nervous System.

I. Anamnesis.

1. Heredity is of pre-eminent importance (particularly in the case of psychical affections, general nervousness, hysteria, epilepsy, etc.). Sometimes it is of importance

to question the patient whether the parents suffered from tuberculosis or syphilis.

2. Previous diseases, above all *syphilis*. Previous *acute infectious diseases*, those that are sometimes followed by nervous affections. Former nervous diseases (convulsions in childhood, migraine, and many others).
3. Other *etiological factors: traumatisms*. *Severe colds*. *Psychical excitations*, fright, mental over-exertion. *Intoxications* (lead, mercury, and many others). Mode of life (*alcoholism*, excessive smoking).
4. Former condition of the patient: nervous excitability, tendency to headaches, and the like.
5. *Single symptoms* on the part of the nervous system.
 - a) Symptoms on the part of the *brain* and of the *cranial nerves*: headaches, dizziness, psychical disturbances (weakness of memory, out of humor, and many others). Disturbances of vision, diplopia. Ringing in the ears and other disturbances of hearing. Disturbances of speech. Difficulties in deglutition. Nervous vomiting. Paralyzes. Disturbances of sensibility, etc.
 - b) Symptoms on the part of the *spinal cord*: pain in the back, girdle-sensation, radiating pains, *disturbances of the*

bladder (incontinence, retention). Constipation. Sexual disturbances.

- c) *Motor symptoms*: weakness, paralysis, twitchings, spasms.
- d) *Sensory symptoms*: manifestations of irritation (pains, prickling, crawling of ants, sensation of numbness). Anæsthesia.
- e) Trophic and vaso-motor disturbances: striking emaciation of a certain part of the body, feeling of coldness, feeling of heat in the skin, etc.

It is very important to ask accurately about the *order of succession*, in which the single symptoms appeared. Which were the *first* symptoms of disease? How and when did the following symptoms appear?

- 6. Behaviour of the *remaining organs* and condition of the *general state of health*.

II. Status præsens.

- 1. *General structure of the body, condition of nutrition*.
- 2. *Skin*: color. Exanthems that may happen to exist. Scars, and the like (signs of syphilis, results of injuries, etc.).
- 3. *Condition of the sensorium* (clear, stupid sopor, coma, etc.).
- 4. *Head*: capillitium (hair, scars). Pain on percussing the skull.

Motility of the structures about the *fore-head*, supplied by the *Facialis*.

Eyes: motility of the eyelids, motility of the Bulbi. Behaviour of the pupil (narrow, wide, unequal, reflex immobility, accomodative movements). Acuteness of vision and field of vision. Color-sense. Ophthalmoscopic examination (atrophy of the optic nerve, congestion papilla, etc.).

Motility of the structures about the face, supplied by the *Facialis*.

Sensibility in the region supplied by the *Trigeminus*.

Sense of hearing. (Under certain conditions an examination with the ear speculum).

Sense of taste. *Sense of smell*.

Motility of the *maxillae* (muscles of mastication).

Motility of the *tongue*, the *soft palate* (reflexes).

Speech. (*Anarthria*. *Aphasia*).

Voice (motility of the muscles of the larynx).

Movements of deglutition.

Condition of the *secretion of saliva*.

5. *Neck* (struma). Condition of the muscles of the neck and nape of the neck, stiffness of the nape of the neck. Sensitiveness to pressure of the cervical vertebrae.

6. *Organs of the chest and abdomen.* Examination of the vertebral column.—Urine.

The special examination of the nervous disturbances of the extremities, and of part of the trunk is to be made according to the following schema :

(A) DISTURBANCES OF MOTILITY.

- a) *Active motion* in all of the joints (paresis, paralysis).
- b) *Co-ordination of movement* (ataxia).—*Intension-tremor*.
- c) Associated movements.
- d) *Motor manifestations of irritation* (twitchings, choreic movements, movements of athetosis, tonic and clonic spasms, etc.). *Tremor*. Fibrillary twitchings.
- e) *Passive motion* (tension of the muscles, contractures). Cataleptic disturbances.
- f) *Trophic condition* of the muscles (atrophy, lipomatosis).
- g) *Electric conditions* of the muscles and nerves (galvanic current, faradic current). *Quantitative changes*, increased or diminished irritability. *Qualitative changes* of irritability. *Reaction of degeneration* (nerve not irritable to either current, muscle not irritable to the faradic, but irritable to the galvanic

current, whereby attention is to be given to the action of the anode and above all to the *sluggish contractions*).

- h) *Walk*. (Spastic, paretic, atactic walk).
—Staggering when the eyes are closed.

(B) DISTURBANCES OF SENSIBILITY.

- a) *Sense of touch* (simple contact). Discrimination between the point and the head of a needle, and the like.
- b) *Sensibility to pain* (needle thrusts, pinching of the skin, electric current).
- c) *Pressure-Sense*.
- d) *Temperature-Sense* (sensation for warmth, sensation for cold. Perverse temperature-sensation).
- e) *Sense of locality* (localization of the sensation). Tactile circles.
- f) *Delayed conduction*. After-sensations. Polyæsthesia.
- g) *Muscle-Sense*: sensation for passive movements. Sense of power. Electro-muscular sensibility.

(C) EXAMINATION OF THE REFLEXES.

- a) *Cutaneous reflexes*: Reflex of the soles of the feet (needle thrusts, stroking, etc.). Cutaneous reflexes of the lower part of the thighs, etc.
Cremaster reflex.
Abdominal reflex.
Gluteal reflex, etc.
- b) *Tendon reflexes*.

On the upper extremities from the lower end of the bones, moreover the tendon reflexes of the biceps, triceps, etc.

Of the lower extremities :

Patellar reflex (knee phenomenon).

Reflex of the adductors.

Reflex of the Achillis tendon (*foot phenomenon*).

(D) VASO-MOTOR AND TROPHIC DISTURBANCES.

Condition of the blood vessels.

Secretion of sweat.

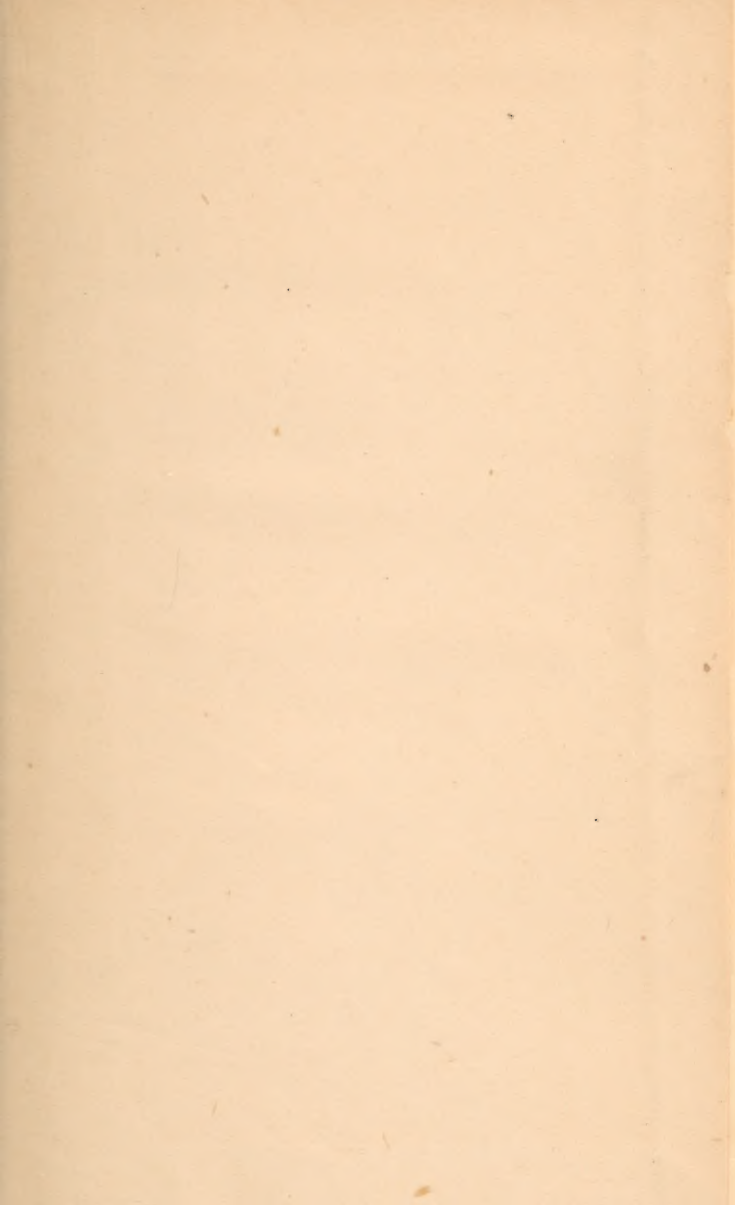
Scaling of the epidermis. Nails, etc.

In the case of aphasic and related conditions, examinations should be made to test :

1. *Free speech*. Recitation of the numbers, months, etc.
2. *Designation of the name* of seen objects.
3. Reading aloud.
4. *Repitition* of sounds, syllables, words, sentences.
5. *Writing*.—Copying.
6. *The understanding of words* ("word deafness.")
7. *The understanding of written characters*.

According to the results of this examination, we distinguish *atactic* and *amnesic aphasia*, *agraphia*, *alexia*, *soul deafness* and *soul blindness*.





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